

REMARKS

The claim language objection has effectively been rendered moot by the Amendment provided herein.

Turning to the rejection of claims 1-2 and 10-11 under 35 USC §103 (a) as being unpatentable over US. Patent No. 6,353,582 to Kikuchi in view of US Patent No. 6,584,048 to Tateishi, et al., the primary reference Kikuchi, in FIG. 4, teaches a device comprising: a signal detector which detects a first focus error signal from all rays of return light reflected from a recording layer; a signal detector which detects a second focus error signal from only central rays of the return light reflected from the recording layer; and a thickness error detector which detects a thickness error of a transparent substrate based on the first and second focus error signals.

Kikuchi, in FIG. 12, teaches a device comprising: a signal detector which detects a first focus error signal from only central rays of return light reflected from a recording layer; a signal detector which detects a second focus error signal from only peripheral rays of return light reflected from the recording layer; and a thickness error detector which detects a thickness error of a transparent substrate based on the first and second focus error signals.

However, Kikuchi does not teach or suggest a signal detector which detects a focus error signal or a sum signal from all rays of return light reflected from a recording layer; and a thickness error detector which detects a thickness error of a transparent substrate based on the focus error signal or sum signal, as required by independent claims 1 and 2 of the present invention. Tateishi does not supply the missing teachings. Tateishi describes a signal detector which detects a focus error signal, however, it discloses neither the constitution comprising a thickness error detector which detects a thickness error of a transparent substrate, nor a description suggesting this constitution.

The present invention is characterized in that: a signal detector which detects a focus error signal or a sum signal from all rays of return light reflected from a recording layer is used to detect a thickness error of a transparent substrate based on the focus error signal or sum signal. Therefore, in the present invention, it is not necessary to divide the return light reflected from the recording layer into two and detect two focus error signals, so that the remarkable effect described in the specification in that the structure of the signal detector becomes simply is obtained.

The Examiner suggests on pages 3 and 4 of the office action that it would have been obvious to incorporate the knife-edge method of Tateishi into Kikuchi to reduce the noise and provide better signals as taught at col. 2, lines 14-21 of Tateishi. However, Tateishi was speaking to noise issues in making "focus jumps" between layers in a multi-layer system. There is no suggestion that Kikuchi suffered noise or the application of the invention suffered from noise issues. Thus, no combination of Kikuchi and Tateishi reasonably could achieve or render obvious any of claims 1, 2, 10 or 11.

Thus, claims 1 and 2, and claims 10-13 which depend directly or indirectly on claim 1 or claim 2, as the case may be, are allowable over the art.

Claims 5-7 and 9 have been amended to depend, directly or otherwise, from claims 14 and 15. As noted by the Examiner in the Office Action mailed October 27, 2004, upon the allowance of a generic claim, applicants will be entitled to consideration of claims written in dependent form to include all the limitations of the generic claims. Claims 14 and 15 are generic and claims 5-7 and 9 include all the limitations of the generic claims. Thus, rejoinder and allowance of claims 5-7 and 9 are respectfully requested.

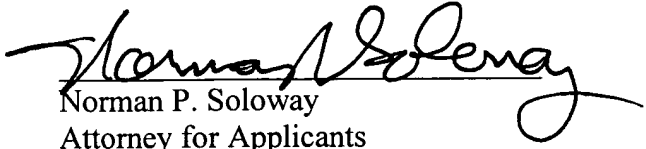
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Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favorable action is respectfully requested.

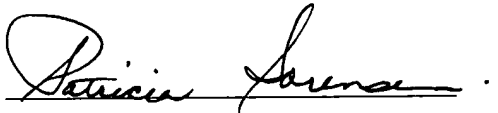
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Respectfully submitted,


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